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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,485	05/16/2006	Dieter Kleyer	2003P16452WOUS	1613

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

JARRETT, RYAN A

ART UNIT	PAPER NUMBER
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2121

MAIL DATE	DELIVERY MODE
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05/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,485	Applicant(s) KLEYER ET AL.	
	Examiner RYAN A. JARRETT	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/10/09, 04/22/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/02/09 has been entered.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 03/10/09 and 04/22/09 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

It is noted that US Patent No. 5,826,060 to Santoline et al. was incorrectly listed as 5,823,060 on the IDS filed 04/22/09. Examiner made the appropriate correction on the form.

Response to Arguments

Applicant's arguments, see pages 3 and 4, filed 04/02/09, with respect to the rejection(s) of claim(s) 16 and 18 under 35 U.S.C. 102(b) have been fully considered and are persuasive only to the extent that Slater does not explicitly disclose a "reflective memory". Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Slater as modified by Vekiarides.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slater US 4,872,106 (provided by Applicant) in view of Vekiarides, N. "Fault-Tolerant Disk Storage and File Systems Using Reflective Memory". Proceedings of the 28th Annual Hawaii International Conference on System Sciences (1995): 103-113.

Slater discloses:

18. A method for operating a redundant automation system for controlling a technical device (e.g., col. 1 lines 11-16), comprising:

operating a first automation device as a master (e.g., Fig. 2, col. 3 line 35: "primary processor");

operating a second automation device as a standby (e.g., Fig. 2, col. 4 line 58: "back-up processor");

storing status data of the first and second automation devices in a ~~reflective~~ memory unit (e.g., Fig. 2 #46, col. 5 line 60 – col. 6 line 14) wherein a common memory area of the ~~reflective~~ memory unit can be written to and read from both said first and said second automation devices, wherein the data present in the common memory area is available in parallel and in real time to the automation devices (e.g., col. 2 lines 1-4, col. 6 lines 39-64);

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sensing, with the use of a monitoring module operatively coupled to both said first and said second automation devices (e.g., col. 5 lines 46-59), for the presence of a vital sign from said first automation device for a change and when no change is sensed during a given cycle of operation, then making a switchover to the standby automation device that takes over the function of the former master automation device (e.g., col. 7 line 45 – col. 8 line 7); and,

wherein there is present in the common memory area of the ~~reflective~~ memory unit status data which describes the current operating status of the technical device and the automation system immediately before a technical device error occurs in the master automation device (e.g., col. 5 line 60 - col. 6 line 14, col. 6 lines 39-64).

16. The method as claimed in claim 18, wherein the switchover is performed in a jolt-free manner such that a portion of the data residing in the common memory area of the ~~reflective~~ memory unit is immediately processed by the standby automation device as the current status image of the technical device and the automation system (e.g., col. 6 line 39 - col. 7 line 7).

As noted above via strikethrough, Slater does not explicitly disclose that the memory unit is a reflective memory unit.

Vekiarides discloses dual controllers connected via a reflective memory (e.g., Fig. 3, Fig. 4, Section 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Slater with Vekiarides since the substitution of one known element (a generic dual port memory with a specific reflective memory) for another would have

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yielded predictable results to one of ordinary skill in the art at the time of the invention. See *KSR v. Teleflex*, 127 S.Ct. 1727 (2007).

One would have been motivated to make such a modification, i.e., substitute the dual port memory of Slater with the reflective memory of Vekiarides, since Vekiarides teaches that reflective memory interconnected computers are well suited to building large scale fault-tolerant disk storage and file systems for I/O intensive applications. The modularity of both computational nodes and input/output controller nodes allows nodes to be removed or added to a Reflective Memory configuration without any down time in the remaining nodes. This modularity in a massively parallel architecture yields a very robust disk storage and file system. The broadcast capabilities of the Reflective Memory allow redundant operations, critical to achieving fault tolerance, to occur at speeds approaching conventional systems (Section 5).

One would have also been motivated to make such a modification since Vekiarides teaches that a reflective memory allows for the dual controllers and disk subsystems to be located in separated rooms or even separate buildings using a fiber-optic link between the controllers (pg. 109 col. 1)

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN A. JARRETT whose telephone number is (571)272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan A. Jarrett/
Primary Examiner, Art Unit 2121

05/27/09